

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A video signal processing system, comprising: for a plurality of color channels, a control circuit and clamping circuit for generating a color channel reference signal and controlling a color channel video signal for each color channel, a minimum signal detector that receives the color channel reference signals as input and is arranged to output, as a minimum signal level, a signal level of a color channel reference signal having only the lowest signal level from among the color channel reference signals, and a brightness limitation circuit coupled to receive the color channel reference signal from each of the color channels and coupled to provide a feedback signal to regulate a brightness level of each video signal according to a comparison of only the minimum signal level and a fixed reference signal level.

2. (Currently Amended) The video signal processing system of claim 1, wherein the brightness limitation circuit comprises a minimum detection circuit formed with diodes for detecting and outputting a minimum signal level of only one from amongst the color channel reference signals, and a comparator having as inputs said fixed reference signal level and said minimum signal level, and producing said feedback signal as output.

3. (Previously Presented) The video signal processing system of claim 2, wherein said comparator is coupled to receive said minimum signal level at its negative input and said fixed reference signal level at its positive input.

4. (Previously Presented) The video signal processing system of claim 2, wherein each said control circuit includes a plurality of adders coupled in the signal path of the corresponding color channel reference signal, and wherein said feedback signal is coupled as input to one of said adders.

5. (Previously Presented) The video signal processing system of claim 4, wherein said feedback signal is coupled from the brightness limitation circuit to the control circuit by way of a brightness control circuit which enables manual brightness adjustment of the color channels.

6. (Previously Presented) The video signal processing system of claim 5, wherein said brightness control circuit incorporates an adder for combining the feedback signal with a manual brightness adjustment signal.

7. (Previously Presented) The video signal processing system of claim 4, further including at least one cut-off adjustment circuit coupled to provide input to a respective adder in the signal path of the color channel reference signal in each control circuit.

8. (Previously Presented) The video signal processing system of claim 1, wherein each said control circuit includes an adder circuit coupled in the signal path of the corresponding color channel video signal, and wherein a feedback signal from said clamping circuit, generated according to the color channel video signal and the color channel reference signal, is coupled as input to the adder circuit.

9. (Currently Amended) A video signal processing circuit for regulating a plurality of color channel video information signals, comprising: a minimum signal detector that receives a plurality of color channel reference signals as input and is arranged to output, as a minimum signal level, a signal level of a color channel reference signal having only the lowest signal level from among the plurality of color channel reference signals, a comparator that

compares said minimum signal level with a fixed voltage reference signal and generates a corresponding output, and an additive feedback coupling of said comparator output signal and each of said color channel reference signals.

10. (Previously Presented) The video signal processing circuit of claim 9, comprising a brightness control circuit for adjusting the video signal brightness level by manual adjustment of said color channel reference signals, wherein said additive feedback coupling of said comparator output signal is coupled through said brightness control circuit.

11. (Currently Amended) A video signal brightness controller, comprising:

a plurality of color channel control means each coupled to receive as input a respective color channel video signal and color channel reference signal and to generate a respective adjusted color channel video signal and adjusted color channel reference signal;

a plurality of clamping means, each clamping means corresponding to a respective color channel control means and coupled to receive as input the respective adjusted color channel video signal and adjusted color channel reference signal and to produce a corresponding clamping feedback signal; and

a brightness limitation means coupled to receive the adjusted color channel reference signal from each color channel control means to produce a corresponding brightness feedback signal based on a detection of a signal level of a color channel reference signal having only the lowest signal level among the plurality of adjusted color channel reference signals;

wherein each said color channel control means includes a first adder in path of the color channel video signal, to which said clamping feedback signal is coupled, and a second adder in the path of the color channel reference signal, to which said brightness feedback signal is coupled.

12. (Previously Presented) The video signal brightness controller of claim 11, wherein said brightness limitation means comprises a minimum signal level detector or detecting the minimum signal level from among the plurality of adjusted color channel reference signals,

and a comparator for generating said brightness feedback signal on the basis of the detected minimum signal level and a fixed reference signal level.

13. (Currently Amended) A method for regulating color channel video information signals, comprising the steps of receiving a plurality of color channel reference signals, outputting, as a minimum signal level, a signal level of a color channel reference signal having only the lowest signal level amongst the received plurality of color channel reference signals, comparing said minimum signal level with a fixed voltage reference signal and generating a corresponding comparator output, and providing an additive feedback coupling of said comparator output signal and each of said color channel reference signals.

14. (Currently Amended) A video signal brightness control circuit for regulating brightness of at least one color video channel, comprising:

a brightness limitation control circuit configured to receive a plurality of color reference signals and configured to generate a feedback signal to regulate the brightness of the at least one color-video channel based on detection of a signal level of a color reference signal having only the lowest signal level from among the plurality of color reference signals.

15. (Currently Amended) The video signal brightness control circuit of claim 14, wherein the feedback signal is responsive to a comparison between only a reference signal and the minimum signal level from the at least one color reference signal from the at least one color video channel.

16. (Previously Presented) The video signal brightness control circuit of claim 15, comprising:

a plurality of color channel control circuits, each configured to receive a respective color channel video signal at a first adder and a color respective channel reference signal at a second adder and to generate a respective adjusted color channel video signal and a respective adjusted color reference signal;

a plurality of clamping circuits, each coupled to a respective color channel control circuit to receive the adjusted color channel video signal and adjusted color reference signal and configured to generate a respective video clamping feedback signal that is received at the first adder of the respective color channel control circuit; and

wherein the brightness limitation control circuit comprises a brightness limitation circuit coupled to each color channel control circuit and configured to generate a brightness feedback signal to the second adder in the respective color channel control circuit based on detection of signal level of an adjusted color reference signal having the lowest signal level among the adjusted color reference signals.

17. (Previously Presented) The video signal brightness control circuit of claim 16, comprising a brightness circuit coupled to the brightness limitation circuit for each of the color video channels and configured to generate a user-adjustable brightness limitation signal to the second adder in each of the plurality of color channel control circuits.

18. (Canceled)

19. (Previously Presented) The method of claim 13, wherein receiving the plurality of color channel reference signals comprises:

receiving a plurality of color channel video signals and corresponding color channel reference signals and generating in response thereto respective adjusted color channel video signals and adjusted color reference signals;

receiving the adjusted color channel video signals and adjusted color reference signals and generating in response thereto respective clamping feedback signals;

adding the clamping feedback signals to the color channel video signals; and

receiving the adjusted color channel video signals and generating in response thereto a respective brightness limitation signal that is added to the color channel reference signal based on the detected signal level of an adjusted color reference signal having the lowest signal level from among the adjusted color reference signals.

20. (Previously Presented) The method of claim 19, wherein receiving the plurality of color channel video signals, corresponding color reference originals, adjusted color channel video signals, and adjusted color channel reference signals comprises:

receiving at a color channel control circuit the color channel video signals and color channel reference signals and generating in response thereto the adjusted color channel video signals and adjusted color reference signals;

receiving at a clamping circuit the adjusted color channel video signals and adjusted color reference signals and generating in response thereto clamping feedback signals; and

receiving the clamping feedback signals at the color channel control circuit and adding the clamping feedback signals to the color channel video signals.

21. (New) A video signal brightness control circuit for regulating brightness of at least one color video channel, comprising:

a brightness limitation control circuit configured to receive a plurality of color reference signals and configured to generate a feedback signal to regulate the brightness of the at least one color-video channel based on detection of a signal level of a color reference signal having only the lowest signal level from among the plurality of color reference signals, wherein the feedback signal is responsive to a comparison between a reference signal and the minimum signal level from the at least one color reference signal from the at least one color video channel;

a plurality of color channel control circuits, each configured to receive a respective color channel video signal at a first adder and a color respective channel reference signal at a second adder and to generate a respective adjusted color channel video signal and a respective adjusted color reference signal;

a plurality of clamping circuits, each coupled to a respective color channel control circuit to receive the adjusted color channel video signal and adjusted color reference signal and configured to generate a respective video clamping feedback signal that is received at the first adder of the respective color channel control circuit; and

wherein the brightness limitation control circuit comprises a brightness limitation circuit coupled to each color channel control circuit and configured to generate a brightness feedback signal to the second adder in the respective color channel control circuit based on detection of signal level of an adjusted color reference signal having the lowest signal level among the adjusted color reference signals.

22. (New) The video signal brightness control circuit of claim 21, comprising a brightness circuit coupled to the brightness limitation circuit for each of the color video channels and configured to generate a user-adjustable brightness limitation signal to the second adder in each of the plurality of color channel control circuits.

23. (New) A method for regulating color channel video information signals, comprising the steps of:

receiving a plurality of color channel reference signals, outputting, as a minimum signal level, a signal level of a color channel reference signal having the lowest signal level amongst the received plurality of color channel reference signals, comparing said minimum signal level with a fixed voltage reference signal and generating a corresponding comparator output, and providing an additive feedback coupling of said comparator output signal and each of said color channel reference signals; and wherein receiving the plurality of color channel reference signals comprises:

receiving a plurality of color channel video signals and corresponding color channel reference signals and generating in response thereto respective adjusted color channel video signals and adjusted color reference signals;

receiving the adjusted color channel video signals and adjusted color reference signals and generating in response thereto respective clamping feedback signals;

adding the clamping feedback signals to the color channel video signals; and

receiving the adjusted color channel video signals and generating in response thereto a respective brightness limitation signal that is added to the color channel reference signal

based on the detected signal level of an adjusted color reference signal having the lowest signal level from among the adjusted color reference signals.

24. (New) The method of claim 23, wherein receiving the plurality of color channel video signals, corresponding color reference originals, adjusted color channel video signals, and adjusted color channel reference signals comprises:

receiving at a color channel control circuit the color channel video signals and color channel reference signals and generating in response thereto the adjusted color channel video signals and adjusted color reference signals;

receiving at a clamping circuit the adjusted color channel video signals and adjusted color reference signals and generating in response thereto clamping feedback signals; and

receiving the clamping feedback signals at the color channel control circuit and adding the clamping feedback signals to the color channel video signals.